IN THE ABSTRACT:

Please amend the abstract as follows:

A fluid supply apparatus with a plurality of flow lines branching out from one pressure regulator with~~for adjustment of pressure,~~ the flow lines ~~being~~ arranged in parallel and constructed so that~~, wherein a measure is taken that the operation, that is,~~ opening or closing ~~of~~ one flow passage will have no transient effect on the steady flow of the other flow passages. E~~For this purpose, e~~ach flow passage is provided with a time delay-type mass flow controller MFC so that when one closed fluid passage is opened, the mass flow controller on that flow passage reaches a set flow rate Qs in a specific delay time Δt from the starting point.

The invention includes~~Also provided are~~ a method and an apparatus ~~for the above~~ in which a plurality of gas types can be controlled in flow rate with high precision by one pressure-type flow control system. ~~To that end, a formula for calculating the flow rate of a gas is theoretically derived that flows with a pressure ratio not higher than the critical pressure ratio. From that formula, the flow factor is defined, so that the formula may be applied to a number of gas types using flow factors.~~

~~The method includes calculating the flow rate Qc of a gas passing through an orifice according to formula $Qc = KP_1$ (K = constant) with a pressure P_1 on an upstream side of the orifice set at twice or more higher than pressure P_2 on a downstream side, wherein the flow factor FF for each kind of gas is calculated as follows:~~

~~$FF = (k/\gamma s)\{2/(\kappa+1)\}^{1/(\kappa-1)}[\kappa/\{(\kappa+1)R\}]^{1/2}$~~

~~and wherein, if the calculated flow rate of gas type A is Q_A, and, when gas type B is allowed to flow through the same orifice under the same pressure on the upstream side and at the same temperature on the upstream side, the flow rate Q_B is calculated as follows:~~

~~$Q_B = (FF_B/FF_A)Q_A$~~

~~where~~

~~γ_S = concentration of gas in standard state;~~

~~κ = ratio of specific heat of gas;~~

~~R = constant of gas;~~

~~K = proportional constant not depending on the type of gas;~~

~~FF_A = flow factor of gas type A; and~~

~~FF_B = flow factor of gas type B.~~

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